

## **REMARKS**

Claims 14-78 are pending in this application.

Claims 42-48, 63-69, 71-74, and 76 stand rejected under 35 USC 112, first paragraph. Claims 49-53, 56-62, 64-69 and 71-74 stand rejected under 35 USC 112, first paragraph. Claims 54-55, 63, 70, and 75-78 stand rejected under 35 U.S.C. §103(a) for obviousness over U.S. Patent No. 5,355,519 to Hasegawa in view of U.S. Patent No. 4,075,632 to Baldwin.

Applicants respectfully traverse the rejections and urge allowance of the present application.

Referring to the statutory double patent rejections, Applicants respectfully submit that the 35 U.S.C. §101 rejections are in error. The Examiner is referred to MPEP §804 (8th ed., rev. 2), which recites, in part, that a reliable test for double patenting under 35 U.S.C. §101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970). Further, the MPEP provides that if there exists an embodiment that falls within the scope of one claim but not the other then statutory double patenting does not exist. Therefore, if the Applicants can demonstrate that the instant claims can be literally infringed without literally infringing claims 1-15 of U.S. Patent No. 6,603,391, then the §101 rejection of the pending claims must be withdrawn.

Referring to the claims, it is evident that pending claim 14 may be literally infringed by an embodiment without literal infringement of claim 1 of the '391 patent. In particular, Applicants submit herewith a copy of a Certificate of Correction of the '391 patent which provides that claim 1 of the '391 patent defines a "phase adjuster" which is

not present in claim 14 of the pending application. In addition, the Certificate of Correction indicates that claim 9 of the '391 patent includes additional limitations to the "providing a phase shift angle" language which is not present in claim 35 of the pending application. Accordingly, claims 1 and 14 of the '391 patent include limitations which are not present in pending claims 14 and 35, respectively, of the present application. It follows that claims 14 and 35 of the present application may be literally infringed without literal infringement of claims 1 and 9 of the '391 patent. The 101 rejection of the claims is improper for at least the above-mentioned reasons and Applicants request withdrawal of the rejection for at least these reasons.

No other rejections have been presented, accordingly, if claims 14-20 and 35-41 are not allowed in the next Action, Applicants respectfully request a subsequent *non-final action* so that Applicants can appropriately respond during the prosecution of this continuation application. Applicants additionally submit that claims 14-20 and 35-41 are patentable over Hasegawa and/or Baldwin for at least the respective reasons presented in the preliminary amendment filed with this application.

Referring to the §112, first paragraph rejection set forth on page 2 of the Office Action, Applicants respectfully refer the Examiner to Figs. 7-9 and the associated teachings of the originally-filed application. Initially, starting at line 19 of page 26 of the specification, it is stated that the phase adjuster is configured to *search across 360 degrees of possible phase adjustments to detect a phase adjustment* of the local continuous wave signal which provides a maximum reduction of amplitude of the modulated signal at the continuous wave signal frequency. Page 27, lines 4-13 provide that following searching of 360 degrees, in one example, 150 degrees was found to

provide a local minimum value. It is stated in the specification that the phase adjuster applies an appropriate control signal to phase shifter 106 to implement the desired phase shift of approximately 150 degrees. The provision of the control signals clearly supports the selection of the exemplary phase shift angle of 150 degrees following the searching of 360 degrees including a plurality of phase shift angles. Indeed, the specification at page 26, lines 16-18 state that phase adjuster 121 operates to **select an appropriate phase shift** of the local continuous wave signal. At page 28, lines 1-14 it is stated that processor 125 can *implement sequential phase shift from 0 to 360 degrees* clearly teaching the claimed *searching of the plurality of phase shift angles* and the teachings at line 8 of page 28 clearly indicate that an appropriate phase shift angle is selected.

The above-identified teachings clearly support the language of claims 42-48, 63-69, 71-74 and 76 especially in view of MPEP §2163.02 (8th Edition) which states the test for sufficiency of support in an application is whether the disclosure relied upon **reasonably conveys** to the artisan that the inventor had possession at that time of the later claimed subject matter. MPEP §2163.02 (8th Edition) *citing Ralston Purina Co. v Far-Mar-Co., Inc.*, 772 F.2d 1570, 1575, 227 USPQ 177, 179 (Fed. Cir. 1985). **Notably, the subject matter of the claim need not be described literally (i.e., using the same terms or in haec verba) in order for the disclosure to satisfy the description requirement.** MPEP §2163.02 (8th Edition). Applicants request withdrawal of the 112, first paragraph rejection set forth on page 2 of the Action for at least this reason.

Referring to the 112, first paragraph rejection on page 3 of the Action, it is stated that Applicants have not pointed out support for claims 49-53, 56-62, 64-69 and 71-74.

Applicants respectfully refer the Examiner to the preliminary amendment filed with the subject application wherein on page 23, the remarks state "Support for the new claims is provided at least in the originally filed specification at pages 23-36 and Figs. 7 and 14."

Further, Applicants note MPEP 2163 II. A. (8th ed.), which states *the Examiner has the initial burden, after a thorough reading and evaluation of the content of the application, of **presenting evidence or reasons** why a person skilled in the art would not recognize that the written description of the invention provides support for the amendment.* Further, it is stated that if applicant points out where a claim is supported (as Applicants provided in the preliminary amendment), the Examiner has the initial burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in the disclosure a description of the invention defined in the claims. Further, MPEP §2163.III.A (8th ed.) provides:

In rejecting a claim, the examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion. These findings should:

- (A) Identify the claim limitation at issue; and
- (B) Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of "unpredictability in the art" is not a sufficient reason to support a rejection for lack of adequate written description.

The Office Action on page 3 merely states that support for the claimed subject matter could not be found with no evidence or reasoning and apparently without reference to the originally application teachings identified in the preliminary amendment. Such fails the clear mandate of the MPEP. Applicant respectfully request withdrawal of the 112, first paragraph rejection on page 3 of the Action or clarification of the 112, first paragraph, rejections in a **non-final action** in accordance with the CFR and MPEP if such rejection is maintained in the next Action so Applicants may appropriately respond.

Turning to the 103 rejections, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, e.g., MPEP §2143 (8<sup>th</sup> ed.).

As discussed below there is no motivation to combine the teachings of Baldwin and Hasegawa in support of the 103 rejection and the rejection under 103 is improper for at least this reason. The Federal Circuit discussed proper motivation *In re Lee*, 61 USPQ 2d 1430 (Fed. Cir. 2002). The motivation identified in the Office Action is akin to the conclusory statements set forth in *In re Lee* which were found to fail to provide the requisite motivation to support an obviousness rejection. The Court in *In re Lee* stated the factual inquiry whether to combine references must be **through and searching**. It must be based **on objective evidence of record**. The Court in *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) stated motivation is provided only by showing some

objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. The Lee Court stated that the Examiner's conclusory statements in the Lee case do not adequately address the issue of motivation to combine. The Court additionally stated that the factual question of motivation is material to patentability and can not be resolved on subjective belief and unknown authority. The Court also stated that deficiencies of cited references cannot be remedied by general conclusions about what is basic knowledge or common sense. The Court further stated that the determination of patentability must be based on evidence.

In the instant case, the record is entirely devoid of any evidence to support motivation to combine the teachings apart from the bald conclusory statements of the Examiner which are insufficient for proper motivation as set forth by the Federal Circuit. The Office cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims but must set forth objective rationale on which it relied.

It is stated on pages 3-4 of the Action that Baldwin teaches the use of a phase shifter in the interrogator of a backscatter communication system which permits the use of phase modulation in a transponder interrogation system. Therebelow, it is stated that the combination with Hasegawa is obvious to permit the use of phase modulation in the interrogation system. As recognized in the Action, Baldwin already provides phase modulation in a transponder interrogation system. Accordingly, one of ordinary skill in the art would not look for further teachings regarding the phase shifter of Hasegawa to provide phase modulation in an interrogation system inasmuch as Baldwin already

provides such teachings and enables the use of phase modulation in a transponder interrogation system. One of skill in the art would not look for additional phase shifter teachings of Hasegawa inasmuch as Baldwin provides phase shifting operations as identified in the Office Action. The alleged motivational rationale for motivating the combination of the teachings of Hasegawa and Baldwin is insufficient inasmuch as Baldwin already discloses the teachings for which Hasegawa is presented. Baldwin already discloses phase modulation. Accordingly, why would one skilled in the art look to Hasegawa to modify the invention of Baldwin when Baldwin already provides the teachings for which Hasegawa is allegedly presented? Such a redundancy clearly demonstrates there is no motivation for one skilled in the art to modify the Baldwin invention with the teachings of Hasegawa, and therefore, the motivational rationale for the combination does not exist. Since the motivational rationale is improper and lacking, the obviousness rejection fails and should be withdrawn. Applicants respectfully request allowance of claim 54 in the next Office Action.

Page 4 of the Action states that the combination is appropriate to have used the phase shifter of Hasegawa in the interrogator of Baldwin to permit the use of phase modulation in the interrogation system. However, at col. 6, lines 13-30, *it is clear that Baldwin already discloses usage of a phase modulation system as opposed to an amplitude modulated system.* Modifying Baldwin according to Hasegawa to provide phase modulation is nonsensical in view of the fact that Baldwin clearly already discloses phase modulation in the interrogator system.

In addition, Applicants note that the phase shifters of Baldwin provide fixed phase shifting operations of 90 degrees and Hasegawa is arranged as a variable, infinite

phase shifter to provide varied phase shifts with reference to col. 1, lines 42-45 to provide variance of a notch frequency of fading. One of ordinary skill in the art would not look to modify the fixed phase shift device teachings of Baldwin with the infinite or variable phase shifter of Hasegawa. Baldwin uses fixed phase shifts of 90 degrees for specific operations set forth in column 4, lines 57-61 to assure that the signals entering the combiner 54 are 90 degrees or 270 degrees out of phase and never 180 degrees out of phase. It is further stated in column 4, lines 28-34 of Baldwin, that a net 90 degrees phase difference is suitable. Accordingly, Baldwin is concerned with specific signals having specific phase differences and one would not be motivated to combine an infinite or variable phase shifter of Hasegawa for use in Baldwin.

Given the specificity of Baldwin regarding phase shifting operations, provision of the variable phase shifter of Hasegawa in Baldwin would destroy the purpose of Baldwin. If the proposed modification would render the prior art invention Baldwin being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP 2143.01, citing to *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Applicants submit the obviousness rejection of claim 54 is improper for at least this reason.

The Office Action fails to identify any teachings or evidence that provide any details of how circuitry of Hasegawa and Baldwin would be modified to accommodate the proposed modification or that the modification would result in an operable arrangement. Significant modification of Baldwin and Hasegawa would be required to incorporate the variable phase shifting of Hasegawa with the operations of Baldwin. The record is devoid of any evidence or teachings that the references could be



combined or that one would be motivated to do so. The obviousness rejection of claim 54 is improper in the absence of proper motivation to combine the reference teachings and claim 54 is allowable for at least this reason.

In addition, even if the references are improperly combined as alleged in the Action, the combination fails to disclose or suggest limitations of claim 54 and claim 54 is allowable for at least this additional reason. In particular, claim 54 recites *selecting one of a plurality of phase shift angles responsive to the received modulated signal, shifting a phase of the local signal according to the selected phase shift angle and combining the phase shifted local signal and the modulated signal*.

To the contrary, Hasegawa teaches phase control means 14 which provides control independent of a received modulation signal. Col. 8, lines 42-45 of Hasegawa merely disclose control means 14 comprises *storage means in which desired phase control data is stored*. The control data is not responsive to a received modulated signal as claimed and provides absolutely no teaching or suggestion of the selecting and claimed shifting. In addition, Baldwin discloses a fixed phase shift with no selection of a phase shift angle, let alone, selection of a phase shift angle responsive to a received modulated signal as claimed. Accordingly, even if the references are combined, the combination fails to disclose or suggest limitations of claim 54 as required for a proper prima facie rejection of claim 54. Claim 54 is allowable for at least this additional reason.

In the event that a rejection of claim 54 is maintained with respect to the prior art, or a new rejection made, Applicants respectfully request identification *in a non-final action* of elements which allegedly correspond to limitations of the claims in accordance

with 37 C.F.R §1.104(c)(2). In particular, 37 C.F.R §1.104(c)(2) provides that the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified. Further, 37 C.F.R. §1.104(c)(2) states that the Examiner must cite the best references at their command. When a reference is complex or shows or describes inventions other than that claimed by Applicants, the particular teachings relied upon must be designated as nearly as practicable. The pertinence of each reference if not apparent must be clearly explained for each rejected claim specified. Applicants respectfully request clarification of the rejections with respect to specific references and specific references teachings therein pursuant to 37 C.F.R. §1.104(c)(2) in a non-final Action if claim 54 is not found to be allowable so Applicants may appropriately respond during the prosecution of this continuation application.

The claims which depend from independent claim 54 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 63, there is no motivation to combine the prior art references and the Office has failed to establish a prima facie rejection. Claim 63 is allowable for at least this reason.

Even if combined, the prior art fails to disclose limitations of claim 63. The method of claim 63 comprises receiving a modulated signal, *shifting a phase of a local signal including selecting one of a plurality of phase shift angles responsive to the received modulated signal*, scaling the components *according to the selected phase shift angle*, and combining the components to provide a phase shifted local signal, and

*combining the modulated signal and the phase shifted local signal.* Hasegawa discloses providing control using phase control means 14 responsive to data stored within storage means which is not responsive to a received modulated signal. Baldwin merely provides a fixed phase shift angle with no selection as claimed. Positively recited limitations of claim 63 are not disclosed nor suggested by the prior taken alone or in combination and claim 63 is allowable for at least this reason.

In the event that claim 63 is not allowed in the next Action, Applicants respectfully request issuance of a *non-final Action in accordance with the CFR* to identify specific teachings of the prior art relied upon as disclosing at least the above-identified limitations so Applicants may appropriately respond during the prosecution of this application.

The claims which depend from independent claim 63 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 70, motivation is lacking to combine the references and claim 70 is allowable for at least this reason.

Limitations of claim 70 are not disclosed nor suggested by the prior art and claim 70 is allowable for this additional reason. More specifically, claim 70 recites the *receiver configured to divide the local signal into plural components and to scale the components according to a plurality of phase shift angles at a plurality of moments in time.* Applicants have electronically searched Baldwin and have failed to uncover any scaling teachings let alone scaling of components of a local signal using a plurality of phase

shift angles at a plurality of moments in time as positively claimed. In addition, the prior art is void of combining the phase shifted local signal and the modulated signal *to reduce an amplitude of the modulated signal* as defined in claim 70. Applicants have searched and failed to uncover any reduction of amplitude of a modulated signal teachings in Baldwin. Accordingly, even if the references are combined, positively recited limitations of claim 70 are not disclosed and claim 70 is allowable for at least this additional reason.

In the event that claim 70 is not allowed in the next Action, Applicants respectfully request issuance of a *non-final Action in accordance with the CFR* to identify specific teachings of the prior art relied upon as disclosing at least the above-identified limitations so Applicants may appropriately respond during the prosecution of this application.

The claims which depend from independent claim 70 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 75, there is no motivation to combine the reference teachings in support of the 103 rejection and claim 75 is allowable for at least this reason.

Further, even if combined, the prior art fails to disclose or suggest claimed limitations of claim 75 including *a receiver configured to select one of a plurality of phase shift angles, to adjust a phase of a local signal using the selected phase shift angle comprising scaling the local signal, or the combining of the phase shifted local signal with the modulated signal to reduce bleed through of a carrier signal of the modulated*

signal as claimed. The prior art is void of any teaching or suggestion of adjusting a phase of a local signal using a selected one of a plurality of phase shift angles. The prior art is void of scaling a local signal using a selected one of the phase shift angles. Applicants have electronically searched both prior art references and have failed to uncover any teachings regarding bleed through of a carrier signal let alone the claimed combining of the phase shifted local signal with the modulated signal *to reduce bleed through*. Positively-recited limitations of claim 75 are not disclosed nor suggested by the prior art and claim 75 is allowable for at least this reason.

In the event that claim 75 is not allowed in the next Action, Applicants respectfully request issuance of a *non-final Action in accordance with the CFR* to identify specific teachings of the prior art relied upon as disclosing at least the above-identified limitations so Applicants may appropriately respond during the prosecution of this application.

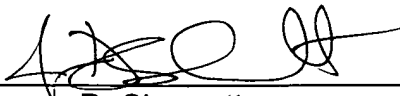
The claims which depend from independent claim 75 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Applicants request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 11/16/04

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